

Application No. 10/686,968

NANS 1001-2

REMARKS

In the Official Action mailed 24 August 2004, the Examiner reviewed claims 1-39. The Examiner rejected claims 1-5, 7-13, 15, 18, 20 and 21 under 35 U.S.C. §102(e); rejected claims 1, 8, 22, 23, 25 and 27 under 35 U.S.C. §102(b); rejected claims 1, 8, 9, 16 and 19 under 35 U.S.C. 102(c); rejected claims 1, 2, 4, 5, 7 and 8 under 35 U.S.C. §102(c); and objected to claims 6, 14, 17, 24, 26 and 28-39.

Applicant has canceled claims 1-5, 7 and 8, and amended claim 22. Claims 6 and 9-39 remain pending.

Each of the Examiner's rejections is respectfully traversed below.

Rejection of Claims 1-5, 7-13, 15, 18, 20 and 21 under 35 U.S.C. §102(e)

Claims 1-5, 7-13, 15, 18, 20 and 21 are rejected under 35 U.S.C. §102(e) as being anticipated by Nanis et al. (USPN 5695111). Applicant points out that Nanis et al. is actually prior art under 35 U.S.C. §102(b). Applicant has canceled claims 1-5, 7 and 8.

With regard to independent claim 9, however, Applicant submits that the Examiner is mistaken. Nanis et al. does not describe the use of the "adhering salt on the surface ... as a flux." On the contrary, Nanis et al. wets the surface with the solder in the lower level of the bath. The Examiner cites sections of Nanis et al. that refer to soldering of the component. However, the first citation at column 5 line 51 - column 6 line 2, merely mentions that the treated component can be connected to a connector component using solder. The process by which the solder is applied is not mentioned in this first citation. The second citation at column 9, lines 22-30, describes the soldering process. In this citation, it is clear that the component is wedged using the solder from the lower level of the bath, and that dried hydroxide salt is not involved in that process. Accordingly, Nanis et al. does not describe all elements of the independent claim 9, and the Examiner's position that claim 9 is anticipated is incorrect. Furthermore, Nanis et al. does not suggest the process recited in claim 9.

Claims 10-13, 15, 18, 20 and 21 depend from claim 9, and distinguish over Nanis et al. for at least the same reasons, and because of the unique combinations recited. Applicant has also amended claim 22 so that it depends from claim 9.

Accordingly, reconsideration of the rejection of claims 9-13, 15, 18, 20 and 21 is respectfully requested.

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Rejection of Claims 1, 8, 22, 23, 25 and 27 under 35 U.S.C. §102(b)

Claims 1, 8, 22, 23, 25 and 27 are rejected under 35 U.S.C. §102(b) as being anticipated by Furuno (USPN 4504324). As mentioned above, Applicant has canceled claims 1-5, 7 and 8.

Claim 22 has been amended so that it depends from claim 9, and is allowable for at least the same reasons and because of the unique combinations recited.

Independent claim 23 recites that the component is immersed in a molten salt. The Examiner has taken the position that column 1, lines 15-56 and column 3, line 47 to column 4, line 49 of Furuno teach the limitations of claim 23, and concludes that the salt in Furuno is molten with supporting citation. In fact, Furuno teaches immersing components in dilute aqueous solutions of sodium hydroxide. The temperatures in aqueous solutions are only 55 degrees C and 50 degrees C, in the examples described at column 7, line 67 and column 9, line 56. These temperatures are not sufficient to melt sodium hydroxide. Rather, the melting temperature for sodium hydroxide is on the order of 318 degrees C. According, the Examiner's position that Furuno anticipates independent claim 23 is mistaken.

Claims 25 and 27 depend from claim 23, and are allowable for at least the same reasons, and because of the unique combinations recited.

Accordingly, reconsideration of the rejection of claims 22, 23, 25 and 27 is respectfully requested.

Rejection of Claims 1, 8, 9, 16 and 19 under 35 U.S.C. §102(e)

Claims 1, 8, 9, 16 and 19 are rejected under 35 U.S.C. §102(e) as being anticipated by Mooij et al. (USPN 6379818 B1). As mentioned above, Applicant has canceled claims 1 and 8.

Independent claim 9 recites immersing a component in a molten salt. The Examiner has referred to column 4, line 45 to column 5 line 33, and to column 10 lines 48-67 of Mooij et al. The Examiner's first citation beginning at column 4, line 45 describes an electroplating solution in which the bath temperatures are between 20 and 70 degrees C. There is no molten salt in an electroplating bath at those temperatures. The Examiner's second citation at column 10, lines 48-67 does not mention molten salt. The citation does mention "alkaline etching" at ambient temperature. However, there is no molten salt present at ambient temperature. Therefore, Mooij does not anticipate claim 9, and reconsideration is respectfully requested.

Claims 16 and 19 depend from claim 9, and are allowable for at least the same reasons.

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Accordingly, reconsideration of the rejection of claims 1, 8, 9, 16 and 19 as amended is respectfully requested.

Rejection of Claims 1, 2, 4, 5, 7 and 8 under 35 U.S.C. §102(e)

Claims 1, 2, 4, 5, 7 and 8 are rejected under 35 U.S.C. §102(e) as being anticipated by Schilbe et al. (USPN 6475289). Applicant has canceled claims 1, 2, 4, 5, 7 and 8.

Allowable Subject Matter

Claims 6, 14, 17, 24, 26 and 28-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has amended claim 6 to incorporate the limitations of its base claim. No amendments are made to the other claims.

Accordingly, reconsideration of the objection to claims 6, 14, 17, 24, 26 and 28-39 is respectfully requested.

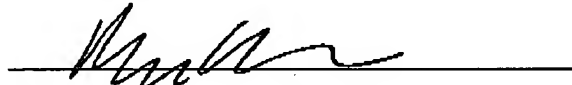
CONCLUSION

It is respectfully submitted that this application is now in condition for allowance, and such action is requested.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (NANS 1001-2).

Respectfully submitted,

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